Department of Veterans Affairs

FACT SHEET

VA RESEARCH

March 2006

History VA's research program was developed as part of the post-World War II effort to enhance patient care in the VA system by affiliating VA medical centers with medical schools. Affiliated hospitals adopted the academic medical model in which physicians care for patients, teach medical students and residents, and engage in their own research. Today VA research continues its proud history of improving medical care for veterans and the general population, while helping recruit talented and academically inclined clinicians to VA. In addition, more than half of U.S. trained physicians receive some of their training at a VA medical center. The VA's network of medical centers and clinics provides an ideal environment in which to search for new knowledge regarding the development, diagnosis, and treatment of disease and physical impairment. Just as importantly, the VA system offers a superior setting for seeking better approaches to organizing and delivering health care and to ensure that research results promptly become a part of enhanced patient care. More than 70 percent of research investigators are also clinicians whose dual roles allow the rapid application of research results to patient care.

Organization The VA research program consists of four distinct services:

- **Biomedical Laboratory R&D Service** – conducts biomedical studies on the causes, development, diagnosis, and treatment of diseases prevalent among veterans.
- **Rehabilitation R&D Service** – promotes research designed to maximize independence for patients by restoring lost function or decreasing the impact of disability.
- **Health Services R&D Service** – examines the impact of organization, management, and financing of health care services on the delivery, quality, cost, and outcomes of care.
- **Clinical Science R&D Service** – conducts multi-hospital, randomized clinical trials for new medical therapies.

Accomplishments VA physicians and scientists have revolutionized medicine through developing new practices and therapies. They were pioneers in aiding the development of:

CARDIAC PACEMAKER -- COMPUTERIZED AXIAL TOMOGRAPHY (CAT) -- DRUG TREATMENTS FOR HIGH BLOOD PRESSURE -- DRUG TREATMENTS FOR SCHIZOPHRENIA -- KIDNEY DIALYSIS -- HOME DIALYSIS TECHNIQUES -- VACCINE FOR HEPATITIS -- LIVER TRANSPLANT

In addition to the above, the VA created the Seattle Foot, a better fitting and lighter artificial limb which allows amputees to walk or run with great ease as well as gain independence and a better quality of life. In 1977, the Nobel Prize for Medicine went to two VA physicians, Dr. Rosalyn S. Yalow of the Bronx VA Medical Center, who was recognized for her landmark work in the development of the radioimmunoassay, and Dr. Andrew V. Schally of the new Orleans VA Medical Center for his research on brain hormones. In 1998, former VA researcher, Dr. Ferid Murad, shared the Nobel Prize for Medicine in part for work conducted at the Palo Alto VA Medical Center on of the role played by nitric oxide in a number of body functions.

Scope For FY 2006, Congress approved an appropriation of $412 million for VA research and development. More than $800 million will be contributed to VA research from other government and non-government sources. Today, VA supports studies by more than 3,800 scientists at 115 VA facilities across the country.

Recent VA Research Advances:

- Found new links between diabetes and Alzheimer's disease.
- Demonstrated that colonoscopy, which views the entire colon, is superior to the more common sigmoidoscopy as a screening method for colon cancer.
- Developed an innovative model of home health care, featuring a greater role for doctors and close cooperation among health care providers that yields higher satisfaction for patients and family caregivers.
- Identified a previously unknown dysfunction in nerve cells involved in multiple sclerosis, offering new hope for treatments of the disease.
- Showed that robot-assisted arm movement may be more effective than conventional rehabilitation in promoting neurologic recovery following a stroke.
- Developed measures and devices that improve evaluation and care of VA patients with visual impairment.
- Demonstrated that VA and non-VA hospitals are comparable in heart attack care, even though VA patients have significantly more chronic complicating conditions.
- Found that schizophrenia patients responded much better to therapy after taking combined drugs (including the anticonvulsive drug divalproex with either olanzapine or risperidone), with no additional side effects.
- Determined that an automated telephone disease management system and follow-up care by a nurse educator is an effective strategy for improving self-care by diabetes patients.
- Identified a key mechanism that may lead to novel therapies for treating severe pain in bone cancer patients.
- Developed a gene that successfully controlled insulin levels in laboratory animals, offering hope for gene therapy for diabetes patients.
- Determined that the loss of brain cells producing the chemical hypocretin may be responsible for narcolepsy, a lifelong illness that causes suffers to fall asleep uncontrollably.
- Showed that the anti-inflammatory drug ibuprofen delays the development and prevalence of protein deposits associated with Alzheimer's disease.
- Conducted the first large-scale clinical trials of hearing aids, showing that the devices can help the hearing-impaired in both quiet and noisy environments.
- Found that annual influenza vaccinations for all working adults could save the nation as much as $1.3 billion each year.
- Studies that are unraveling the mysteries of narcolepsy
- Finding new cells that may help treat osteoarthritis

For more information on these studies or VA research in general, please call
VA Research and Development Communications at (410) 962-1800, x223, or visit our website at

www.research.va.gov
# # #